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Formation of *blind*-*via* in laminated substrate used in integrated circuit package - by *laser* *drilling* *blind* *via* in substrate from top surface to bottom using lasers that are trepanned in first pattern, then in second pattern

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Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Main IPC	Week
WO 9820537	A1	19980514	WO 97US19147	A	19971022	H01L-021/48	199825 B
AU 9850857	A	19980529	AU 9850857	A	19971022	H01L-021/48	199841

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Abstract (Basic): WO 9820537 A

Formation of a *blind*-*via* in a laminated substrate comprises:

(i) *laser* *drilling* a *blind* *via* in a laminated substrate from a top surface of the substrate toward a bottom surface using a first laser and a first trepanning motion of a laser focal spot of the first laser; and (ii) *laser* *drilling* the via in the substrate from the top surface toward the bottom surface using a second laser and a second trepanning motion of a laser focal spot of the second laser.

Also claimed is the laminated substrate having a *blind* *via*.

USE - Used in integrated circuit packaging, especially in integrated circuit packaging interconnections.

ADVANTAGE - The vias formed have smaller entrance diameters, exit diameters, greater aspect ratios and lower average via resistances than vias formed conventionally. An improved high-volume manufacturing yield is provided over conventional approaches because a high degree of manufacturing repeatability is ensured.

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International Patent Class (Main): H01L-021/48

International Patent Class (Additional): *H05K-003/00*; *H05K-003/40*

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